



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/585,924

07/13/2006

Yanis Caritu

128684

1655

25944 7590 10/16/2008

OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER

LEIBY, CHRISTOPHER E

ART UNIT

PAPER NUMBER

2629

MAIL DATE

DELIVERY MODE

10/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/585,924	Applicant(s) CARITU, YANIS	
	Examiner CHRISTOPHER E. LEIBY	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-22 is/are rejected.
- 7) ☒ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. **Claims 12-22** are pending.

Claim Objections

2. **Claim 13** is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim states the method of claim 12 further comprising mathematical integration of the tangential vector, wherein claim 12 states mathematical integration of a quantity that is a function of the vector tangential to the path. The claim language discloses the same subject matter, therefor claim 13 does not further limit the parent claim.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. **Claim 21** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Neither the claim nor the specification (specifically the last paragraph) disclose how a sensor providing a physical quantity enables mapping of that physical quantity according to the measured

path. Therefore, the claim fails to particularly point out and distinctly claim the subject matter.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 12-14, 18-20, and 22** are rejected under 35 U.S.C. 103(a) as being anticipated by **Wang et al.** (US Patent Application Publication 2004/0085286), herein after known as Wang, in further view of **Leung** (US Patent 6,388,655).

Regarding **independent claim 12 and dependent claim 13**, Wang discloses a method for recognizing the path of a tip of a body on a medium (*paragraph [0067]*), comprising determination of an angle of orientation of the body by processing measurement data supplied to a processing unit by at least one angle sensor arranged in the body (*figure 7 reference 715 and paragraph [0067]*), the body comprising a force sensor measuring the reaction force of the tip of the body in contact with the medium (*figure 2 reference 203 which is a pressure sensor and assumed to be the same for 703 shown in figure 7 but mistakenly not disclosed*), the force sensor supplying data representative of the reaction force in almost continuous manner to the processing unit (*paragraph [0041] wherein the pressure sensor may detect*

depressive force with which the user makes strokes, implying while the pen is down the sensor in almost continuous manner supplies a signal representative of the force applied by the user), the processing unit determining the orientation of the reaction force with respect to the plane of the medium from the measurement data from the angle sensor and from the force sensor (*paragraphs [0067] which discloses detecting pen position and orientation via inertial sensor data which would be used by processor 606 disclosed in paragraph [0065] to detect the pen*), method wherein the processing unit determines a vector tangential to the path by projection of the reaction force in the plane of the medium, the path being determined by at least one mathematical integration of a quantity that is a function of the vector tangential to the path .

Wang does not specifically disclose how the computation is done to determine the orientation or path of the pen.

Leung discloses a method wherein the processing determines a vector tangential to the path by projection of the reaction force in the plane of the medium, the path being determined by at least one mathematical integration of a quantity that is a function of the vector tangential to the path (*figure 3a and column 6 lines 36-61*).

It would have been obvious to one skilled in the art at the time of the invention to combine the methodology of computing the path as disclosed by Leung with the flat surface and pen of Wang in order to simplify the mathematical computations of integration as disclosed by Leung (*column 6 lines 36-40*).

Regarding **claim 14**, Leung discloses a method, wherein the medium is flat (*column 7 lines 30-40 which discloses that any surface with a known configuration that can be represented mathematically could be instrumented which includes a flat surface*).

Regarding **claim 18**, Wang and Leung disclose a method, comprising determination of the acceleration of the tip by processing of measurement data supplied to the processing unit by the angle sensor and by at least one accelerometer located in the body (*Wang: paragraph [0067] reference gyroscope and accelerometers*), the processing unit determining a unitary vector tangential to the path by normalization of the vector tangential to the path and determining the scalar product of data representative of the acceleration and of the unitary vector so as to obtain said quantity representative of the tangential acceleration of the tip of the body, the path being determined by double mathematical integration of said quantity (*Leung: figure 3a and column 6 lines 36-61*).

Regarding **claim 19**, Wang discloses a method, wherein the processing unit determines the projection of the acceleration in the plane of the medium according to the data supplied by the accelerometer and the angle sensor, so as to supply said data representative of the acceleration (*paragraph [0067] wherein the sensors provide data representing movement, positioning, and orientation of the device*).

Regarding **claim 20**, Wang discloses a method, comprising an estimation of the contribution of gravity to the measurement data supplied by the accelerometer and elimination of said contribution from the data supplied by the

accelerometer (*paragraph [0067] wherein computations incorporating gravitational forces upon the pen are used*).

Regarding **claim 22**, Wang discloses a method, wherein the body comprises an actuator (*paragraph [0041] reference pressure sensor which may facilitate selection of an object, hence an actuator*).

7. **Claims 15-17** are rejected under 35 U.S.C. 103(a) as being anticipated by **Wang Leung**, and in further view of **Elrod et al.** (US Patent 5,341,155), herein after referred to as Elrod.

Regarding **claims 15, 16, and 17**, neither Wang nor Leung disclose a calibration of the device.

Elrod does disclose calibration of a screen using a pen held perpendicularly to the screen during the calibration step (*figure 5 and column 8 lines 22-36*).

It would have been obvious to one skilled in the art at the time of the invention to apply Elrod's calibration techniques to device combination of Wang and Leung in order to correctly calibrate Wang and Leung's touch screen.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER E. LEIBY whose telephone

number is (571)270-3142. The examiner can normally be reached on 9 - 5
Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, Richard A. Hjerpe can be reached on 571-272-7691. The
fax phone number for the organization where this application or proceeding is
assigned is 571-273-8300.

Information regarding the status of an application may be obtained from
the Patent Application Information Retrieval (PAIR) system. Status information
for published applications may be obtained from either Private PAIR or Public
PAIR. Status information for unpublished applications is available through
Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-
free). If you would like assistance from a USPTO Customer Service
Representative or access to the automated information system, call 800-786-
9199 (IN USA OR CANADA) or 571-272-1000.

CL

October 10th, 2008

/Richard Hjerpe/
Supervisory Patent Examiner, Art Unit 2629